

Application No. 10/509,340
Declaration Under 37 CFR § 1.132
Docket No.: 259549US0X PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:
Masaya OKAMOTO, et al
SERIAL NO: 10/509,340

GROUP:1624

EXAMINER: E. O. SACKY

FILED: October 8, 2004

FOR: PROCESSES FOR PRODUCING CARBONIC ESTER AND PRODUCING
POLYCARBONATE

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

Sir:

Now comes Yoshio Ikeda who deposes and states that:

1. I am a graduate of Kyoto Institute of Technology and received my Masters degree in the year 2002.
2. I have been employed by Idemitsu Kosan Co., Ltd. for 6 years as a chemist in the field of polymer chemistry.
3. The following experiments were carried out by me or under my direct supervision and control.

Comparative experiments were run to compare the results of polymerizing a bisphenol A and carbon monoxide to form polycarbonate using the conditions set forth in Example 9, pages 31 through 32, of the originally filed specification, except that in Declaration Example 1, ethylene carbonate was used in place of propylene carbonate as the reaction solvent, and in Declaration Example 2, diphenyl carbonate was used in place of propylene carbonate as the reaction solvent.

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Declaration Example 1:

The procedure employed to synthesize polycarbonate from Example at pages 31-32 of the originally filed specification was employed, except that ethylene carbonate was used in place of propylene carbonate. The yield of polycarbonate obtained was 20%, with the polycarbonate product having a number average molecular weight (Mn) of 2000 and a weight average molecular weight (Mw) of 3400.

Declaration Example 2:

The procedure employed to synthesize polycarbonate from Example at pages 31-32 of the originally filed specification was employed, except that diphenyl carbonate was used in place of propylene carbonate. The yield of polycarbonate obtained was 6%, with the polycarbonate product having a number average molecular weight (Mn) of 800 and a weight average molecular weight (Mw) of 1000.

The yield, number average molecular weight data, and weight average molecular weight data from Example 9 of the originally filed specification, Declaration Example 1, and Declaration Example 2 are presented in the declaration table (below).

No.	Solvent	Yield (%)	Mn	Mw
Example 9	Propylene Carbonate	44	2630	3590
Declaration Example 1	Ethylene Carbonate	20	2000	3400
Declaration Example 2	Diphenyl Carbonate	6	800	1000

Mw= weight average molecular weight

Mn= number average molecular weight

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As shown in the table, the yields employing propylene carbonate and ethylene carbonate were significantly higher than employing diphenyl carbonate. Additionally, the molecular weight averages of the carbonates resulting from employing propylene carbonate and ethylene carbonate were significantly higher than the molecular weight average of the carbonate resulting from employing diphenyl carbonate. These superior results were unexpected.

4. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

5. Further deponent saith not.

Yoshio Ikeda
Signature

June 19, 2008
Date

Customer Number
22850
Tel. (703)413-3000
Fax. (703)413-2220
(OSMMN 05/06)